

Mesoamerican Day-Count

To figure out what day you were born on according to the Aztec / Mixtec divinatory calendar you need to begin by figuring out how many days have passed between August 13th, 1521 and the day you were born. Why August 13th, 1521? This is the day that Tenochtitlan (Mexico City) fell to the Spanish. This date has been recorded as "1 Serpent," so it is a known starting point. This takes nine steps, which you will work through one at a time now. Be careful with each step, or you may have to start all over to find your mistake!

Step 1. First, begin with the year you were born, and subtract 1521 from this. For example, my birthday is February 6, 1982, so I will use 1982, and subtract 1521.

$$1982 - 1521 = 461$$

Find the difference between the year you were born and 1521.

This is how many years are between the year you were born and the year 1521.

Step 2. Now you need to convert your number of years to the number of days. To do this you will multiply your first number, the difference in years, by 365, the number of days in one year. For me, this is what I multiplied: 461 years x 365 days/year = 168,265 days.

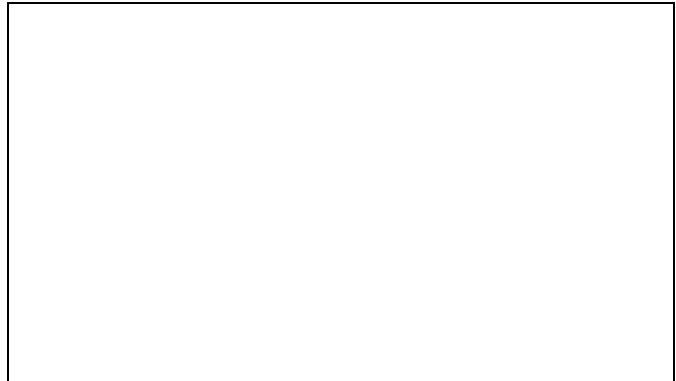
Multiply your difference by 365 days/year:

This is the number of days between August 13th, 1521 and August 13th, the year of your birth. *Well, almost...*

Step 3. Now you will divide the difference from Step 1 by 4 to find out how many of these years were leap years, since every 4 years is a leap year, and therefore has one extra day.

For myself, $461 \text{ years} / 4 = 115 \text{ R}1$ leap years. Because my remainder is 1, I will round down to 115. However, if you have a remainder of 2, you will also round down, but with remainder 3 you will round up. This is because the year we started with was 1521, one year after a leap year, so there were 3 years until the next leap year (hence the remainder 3 rounds up, but other remainders don't).

Divide your difference in years (your answer from **Step 1**) by 4, and round the remainder (if you have one), using the rules above:



This number is both the number of leap years, and the number of extra leap-year-days, between August 13th, 1521, and your birthday.

Step 4. Since each one of those years had an extra day, you have to add that to your total number of days from Step 2.

For example: $168,265 \text{ days} + 115 \text{ extra leap days} = 168,380 \text{ days}$.

Add your number of extra leap days to your **product** from Step 2:



Step 5. Okay, you're almost there. This number isn't exactly right, because, in order to keep the Gregorian calendar on track with the actual solar year (which averages 365.24219 days), there have been some adjustments over the years: In the year 1582, the Pope took away 10 days from the calendar. Also, the years 1700, 1800 and 1900 were made into non-leap years, so we have to subtract 13 days from the number we have.

For example: $168,380 - 13 = 168,367$ days between August 13th, 1521 and August 13th, 1982

Subtract 13 from your number:

Step 6. Now, if you were born on August 13th, you are just about done (you may skip to Step 8)! But most of you probably weren't born on August 13th, so you have to do a little more math to figure this part out. You need to now figure out how many days are between your birthday and August 13th. This can be a little tricky, and you will probably want to look at a calendar to help with this part. I found out there are 188 days between August 13th, 1982 and February 6, 1982. There are many ways to count.

Number of days between your birthday and August 13th
(use a calendar and any method you like):

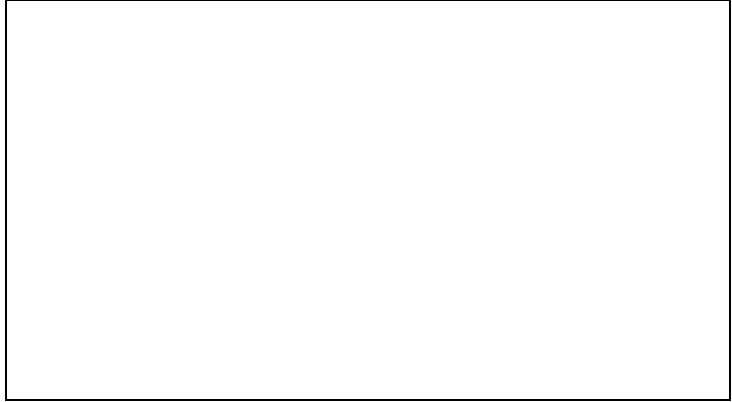
Step 7. Once you have found out how many days are between August 13th and your birthday, you will either subtract this number from or add it to your the difference from Step 5. If your birthday is before August 13th, subtract. If your birthday is after August 13th add this number.

$168,367 \text{ days} - 188 \text{ days} = 168,179 \text{ days}$

Subtract/Add step 6's answer from/to Step 5's difference.

Step 8. This is the number you will use to find out your day number and day name that you would have been given if we still used this calendar. First, you will start by finding our day. There are 13 different day numbers, so what you're going to do is divide our number by 13. You will get a quotient with a remainder, and what you are interested in is the remainder. August 13th, 1521 was the day 1 Serpent. You will add the 1 to our remainder and that will be your day number.

For me, $168,179 / 13 = 12,936 \text{ R } 11$. So my number is $11 + 1 = \mathbf{12}$. (If your remainder is 0, then do $0 + 1$)



Step 9. There are 20 different day signs, (day naming sheet will be needed for this part) so you will now divide your original number by 20, and once again you will use *the remainder* to find your day sign. Since 1 Serpent is what we started with, we will count our day signs on from Serpent.

For myself, $168,179 / 20 = 8,408 \text{ R } 19$. If I count 19 signs past Serpent, I reach **Lizard**. So my name (# and sign) is **12 Lizard**.



Now, check your answer!

Go to <http://www.azteccalendar.com> and enter your birthday in to see if you are right, or if you've made a mistake.

My Mixtec name is _____
Day Name